# **Comparisons of Job Characteristics**

Focus Occupation: Hydrologists (19-2043)

Associated Occupation: Physical Scientists, All Other (19-2099)

Compare Knowledge Compare Skills Compare Abilities Compare Detailed Work Activities Compare Tools and Technologies

| << | Focus occupation element is much lower             |
|----|--|
| <  | Focus occupation element is lower                  |
| 0  | Focus occupation element is at a similar level     |
| >  | Focus occupation element is at a higher level      |
| >> | Focus occupation element is at a much higher level |

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Hydrologists (19-2043)

Associated Occupation: Physical Scientists, All Other (19-2099)

| Associated Occupation's<br>Key Knowledge Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating |    | Evaluation of Focus Occupation                         |
|---|---------------------------------------|--------------------------------------|---------------------------------|----|--|
| Geography   | 3.9                                   | 21.7                                 | 16.7                            | << | Extensive education and/or training may be required    |
| Computers and Electronics                         | 8.4                                   | 17.9                                 | 13.5                            | << | Extensive education and/or training may be required    |
| Mathematics                                       | 9.2                                   | 16.2                                 | 17.7                            | 0  | Current knowledge level may be sufficient              |
| Engineering and Technology                        | 5.7                                   | 12.4                                 | 17.4                            | >> | Current knowledge level is likely more than sufficient |
| Physics   | 4.3                                   | 11.9                                 | 15.7                            | >> | Current knowledge level is likely more than sufficient |
| Biology   | 3.7                                   | 9.4                                  | 13.6                            | >> | Current knowledge level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

#### **Skills**

Similarity of Focus Occupation to Associated Occupation: 8

Focus Occupation: Hydrologists (19-2043)

Associated Occupation: Physical Scientists, All Other (19-2099)

| Associated Occupation's<br>Key Skills Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating | Evaluation of Focus Occupation                               |  |
|--|---------------------------------------|--------------------------------------|---------------------------------|--|--|
| Reading Comprehension                          | 10.7                                  | 14.9                                 | 13.9                            | Current skill level may be sufficient                        |  |
| Writing  | 9.2                                   | 13.9                                 | 12.0                            | A higher skill level may be required                         |  |
| Complex Problem Solving                        | 9.1                                   | 13.3                                 | 11.9                            | A higher skill level may be required                         |  |
| Science  | 4.5                                   | 13.2                                 | 13.0                            | Current skill level may be sufficient                        |  |
| Mathematics                                    | 6.2                                   | 12.2                                 | 12.8                            | Current skill level may be sufficient                        |  |
| Operations Analysis                            | 5.0                                   | 11.6                                 | 5.8                             | Extensive development of skills in this area may be required |  |

| Systems Analysis   | 6.5 | 11.4 | 9.9 | < | A higher skill level may be required |
|--------------------|-----|------|-----|---|--------------------------------------|
| Systems Evaluation | 6.4 | 10.1 | 8.9 | < | A higher skill level may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

### **Abilities**

#### Similarity of Focus Occupation to Associated Occupation: 97

Focus Occupation: Hydrologists (19-2043)

Associated Occupation: Physical Scientists, All Other (19-2099)

| Associated Occupation's<br>Key Abilities Elements | Average<br>Rating, All<br>Occupations | Associated<br>Occupation's<br>Rating | Focus<br>Occupation's<br>Rating |   | Evaluation of Focus Occupation             |  |
|---|---------------------------------------|--------------------------------------|---------------------------------|---|--|--|
| Written Comprehension                             | 11.0                                  | 15.1                                 | 14.6                            | 0 | Current ability level may be sufficient    |  |
| Deductive Reasoning                               | 10.6                                  | 14.4                                 | 13.4                            | 0 | Current ability level may be sufficient    |  |
| Inductive Reasoning                               | 10.2                                  | 13.8                                 | 14.6                            | 0 | Current ability level may be sufficient    |  |
| Written Expression                                | 9.8                                   | 13.6                                 | 14.1                            | 0 | Current ability level may be sufficient    |  |
| Problem Sensitivity                               | 11.1                                  | 13.5                                 | 13.9                            | 0 | Current ability level may be sufficient    |  |
| Mathematical Reasoning                            | 6.3                                   | 13.0                                 | 13.8                            | 0 | Current ability level may be sufficient    |  |
| Information Ordering                              | 9.9                                   | 12.5                                 | 11.6                            | 0 | Current ability level may be sufficient    |  |
| Number Facility                                   | 6.3                                   | 11.2                                 | 10.8                            | 0 | Current ability level may be sufficient    |  |
| Category Flexibility                              | 9.0                                   | 11.1                                 | 11.2                            | 0 | Current ability level may be sufficient    |  |
| Flexibility of Closure                            | 7.8                                   | 10.6                                 | 12.0                            | > | Current ability level is likely sufficient |  |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

There are no common work activities.

# **Tools and Technologies that Both Occupations Have in Common**

Similarity of Focus
Occupation to Associated
Occupation: 67

Focus Occupation: Hydrologists (19-2043)

Associated Occupation: Physical Scientists, All Other (19-2099)

| Tools and Technologies                            | Exclusivity |
|---|-------------|
| Business function specific software               | 1           |
| Cameras   | 2           |
| Computers   | 1           |
| Content authoring and editing software            | 1           |
| Development software                              | 4           |
| Industry specific software                        | 1           |
| Information exchange software                     | 1           |
| Light and wave generating and measuring equipment | 4           |
| Network applications software                     | 1           |
| Radar and sonar systems and components            | 24          |
| Spectroscopic equipment                           | 10          |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.